C
XVII
h/19

32663/D

Cxviii h

[*From the* PHARMACEUTICAL JOURNAL, *Vol. IV., No. VI.*]

NEW REMEDIES FOR GOUT.

Extracted from a paper in the Medical Gazette of November 8, entitled "Researches on Gout."

BY ALEXANDER URE,

Fellow of the Royal College of Surgeons of England, Surgeon to the Westminster General Dispensary, and Hon. Member of the Pharmaceutical Society.

MANGANESE, in the state of proto-carbonate, is present in the waters of Marienbad, Carlsbad, and other German springs, whither gouty invalids annually resort in quest of health; in the state of oxide, it forms one of the normal constituents of the bones. It was first shown by M. C. G. Gmelin, of Tubingen (*Versuche über die Wirkungen des Baryts, &c.*, 1824, p. 96), that the manganese salts when injected into the blood-vessels augmented the biliary secretion to such a degree, as to produce a deep yellow staining of the coats of the intestines, and of the great vessels in the vicinity. According to M. A. Barbet (*Journal de ChimieMédicale*, tome v., p. 534), muriate of manganese forms a main ingredient of a nostrum sold in Paris, under the name of the deobstruent powder of Rouvière. This, taken for a few days, is said to procure abundant bilious evacuations.

If a drachm of sulphate of manganese be dissolved in about half a pint of water, and swallowed before breakfast, it will generally occasion after the lapse of an hour or so, one or more liquid stools.

Sulphate of manganese has a cooling and bitter taste, resembling that of Glauber salt. Dr. Thomson (*Chemistry of Inorganic Bodies*, vol. ii., p. 587) says, "It may be administered as a cathartic, in doses of from half an ounce to an ounce." I have always found a much smaller quantity suffice, and should be reluctant to give it to that extent. It acts most efficiently when dissolved in a considerable quantity of water. On particular occasions, infusion of senna furnishes a useful adjunct.

In order to abate the erethism of the vessels of the gouty articulation, to further the absorption of effused fluids, and to arrest the recurrence of attacks which, in the long run, lead to distortion and ankylosis, the topical employment of Acetic Ether and Rectified Coal Naphtha will be found highly serviceable. The former was first introduced to the notice of the profession by M. Sedillot, in the *Transactions of the Medical Society of Paris* (No. x., Mess. An. 5), but never seems to have attracted attention here. Acetic ether generally determines a speedy sedative agency in the more acute stage of the malady, when applied with gentle friction over the whole of the affected surface, to the amount of half an ounce every twelve hours, provided after each friction the patient is kept warm in bed. In the subacute form of the disease, I have witnessed very beneficial effects from simply pencilling over the part with a camel-hair brush dipped in naphtha*.

* Care must be had not to confound this with a spirit sold under the same name, used for making hatters' varnish, and lately introduced as a medicine. The properties of the two are quite dissimilar.

In some instances, indeed, this seemed to have the power of warding off an impending paroxysm. I was first led to try it in gouty cases, from being told by an extensive manufacturer of the article near Birmingham, that affections of the joints were unknown among his workmen, while they were common enough among the operatives of other factories in the neighbourhood.

Coal naphtha is a pure hydro-carbon, almost identical in nature and properties with the naphtha which occurs native on the shores of the Caspian sea, in Persia, and other countries of Asia. The latter, alluded to by Herodotus, has been used from a remote period by some of the nations of the east, against the very ailment in question. Thus, Dioscorides (Lib. i. c. 85) says, "Podagris articulorum doloribus lethargisque prodest;" and Bontius (*Hist. Nat.* p. 17), in describing what he calls "a noble species of naphtha" brought from Sumatra, and highly prized for its medicinal virtues by the Javanese, concludes as follows: "Partibus affectis illitum miraculi instar ægros consolatur."

Naphtha topically applied imparts a feeling of warmth, sometimes accompanied with slight tingling. It acts obviously upon the principle of a mild but penetrating counter-stimulant, determining contraction of the capillaries, increase in the rapidity of their circulation, and progressive absorption of liquid effusion.

As a remedial agent, seemingly endowed with qualities capable of counteracting and removing tophaceous deposition, Silicate of Potash, the *liquor of flints* of the older chemists, deserves a trial. This salt passes through the system unchanged, and can be detected in the urine of animals to which it has been given by the mouth. It exercises a very powerful solvent action upon the urate of soda. I have prescribed it for one or two patients in doses of ten and fifteen grains twice a day, dissolved in six or eight ounces of water, with apparent benefit.

scale, reason was in the other. This opinion, in which a large proportion of physicians attached to asylums coincide, is worthy of the consideration of our brethren in general practice, and strongly supports the propriety of the immediate removal of the insane to asylums, where tranquillity can be purchased at a less ruinous price; and where there is a chance, that, whatever treatment is judged expedient, will be pursued without interruption, and the results accurately ascertained.

ARTICLE III.—*On the Changes in the Colour of the Iris produced by Inflammation.* By JAMES HUNTER, M.D., *Surgeon to the Edinburgh Eye Dispensary.*

THOUGH the non-occurrence of change in the colour of the iris, during or subsequent to ophthalmia, be no certain test of its healthy condition, yet the well-marked appearance of such change is evidence of the past or present existence of iritis, and one which, from its varieties in different stages of the disease, and in different individuals, deserves the careful investigation and attention of practitioners. To give a physico-pathological explanation of the changes in the colour of the inflamed iris, founded on the observation of numerous cases, and to draw some practical deductions from their consideration, is the object of this memoir.

In the earliest stage of iritis, the iris contains an unusual quantity of red matter; the vessels, however, being merely distended with blood. On the other hand, in the latter stage of uncontrolled iritis, or in the sequelæ of the disease, yellow lymph is effused into the interstices of the iris, which consequently assumes a yellow appearance. In the intermediate stage, when there is both a fulness of the blood-vessels, and incipient effusion of lymph, the iris contains much reddish yellow matter. On the existence of some one of these conditions, the morbid changes observed in the colour of the iris primarily depend.

If the iris were naturally white, and if the ophthalmiæ affecting it were confined to its middle tissue, then acute cases would be always distinguished by a pinky redness, chronic cases by a primrose yellowness, and those of a subacute nature by a pale orange tint. But as inflammation may affect different parts of the iris, and as the natural colour of the organ varies much in different persons, the morbid changes in its colour will be modified by these two circumstances, especially by the last.

I. *Modification in colour depending on the seat of the disease.*—When inflammation affects chiefly the anterior layer of the iris, and is not syphilitic, it is generally subacute, and connected with strumous disease of the lining membrane of the cornea. In such cases, a change of colour is often hardly perceptible at an early stage, from

the vessels not admitting many red globules; and it is chiefly in the more chronic stage that it occurs, the surface of the iris appearing of a pale yellow, or greenish yellow hue. In syphilitic iritis the anterior surface of the iris is often greatly inflamed, of a bright vermilion in the early stage, and orange or yellow coloured afterwards, when lymph is thrown out. When inflammation affects principally the membrane of the uvea, it is generally subacute or chronic, and often connected with some deep-seated ophthalmia, such as hyaloiditis or choroiditis. In such cases very little or no change of colour is observed. Inflammation affecting principally the true substance of the iris, and extending more or less to both its surfaces, is by far the most common form of the disease, and the one in which the morbid changes in colour are most remarkable and constant. When only the smaller circle of the iris is inflamed, and generally it is the part first affected, the change in colour will not extend much beyond it. The same may take place when the inflammation is confined to the greater circle of the iris—a comparatively very rare occurrence.

II. *Modification in the change of colour depending on the natural tint of the iris.*—This is the main cause of the variety in the change of colour, in similar stages of iritis, in different persons. The morbid colour being always a compound of the natural colour of the iris with red, red and yellow, or yellow, according to the stage and severity of the inflammation. The following are the more common natural varieties in the colour of the iris:—Deep blue, or greyish blue; greyish blue with yellow markings, appearing greenish at a distance; basalt black; clove brown; hazel; citron, or wax-yellow. The first three varieties are most common in fair persons, the others in those of a dark complexion, though there are many exceptions. Besides these, there are several minor natural varieties; but most of them may be referred to one or other of the foregoing classes. The whole iris is not always of the same colour; the smaller ring being frequently of a lighter or darker, or even of a totally different hue from the rest of it. Attention to this is of some importance, in judging of the morbid changes in colour. When the chief part of the iris is deep blue, the inner circle is often blueish grey, or *vice versa*. In other cases, a generally blue, or blueish grey iris, has an inner ring of a citron or wax-yellow colour. A dark iris, with a yellowish or light olive inner circle, is also frequently met with; but a blue iris with a hazel inner ring, or a dark iris with a light-blue one, are very rare varieties. The irides of the right and left eyes are for the most part alike; and when the colour of one has been changed by disease, it may, with very few exceptions, be correctly assumed to have been originally the same as that of the other. In some extremely rare cases the iris is of a different shade, or even of a totally different colour, at the opposite sides of the pupil.

The following are the changes of colour usually observed in a naturally full blue iris, in the successive stages of inflammation, affect-

ing its whole thickness, and allowed to go on till it produces permanent organic injury. At first the iris acquires a more or less deep purple tinge, from the combination of red blood with the natural blue of the part. In the next stage, when yellowish lymph begins to be exuded, and there is still much red blood in the vessels, the iris becomes almost quite black in some cases, but more frequently of a hornblende, or basalt black, with a tinge of green. In the third stage, when a much greater quantity of lymph is exuded, the colour gradually acquires a greenish cast, very dingy and neutral at first, but brighter afterwards, and approaching to grass-green in the sequelæ of the disease, when the increased vascularity has quite subsided. This green colour is caused by the combination of yellow lymph with the natural blue of the iris.

The blackening observed in the transition stage of inflammation in a blue iris is most distinctly seen, and is of the darkest hue, in cases of severe traumatic general ophthalmia, where, along with the extensive effusion of pus and lymph, there is very great vascularity. For a long time this change seemed to me quite anomalous and inexplicable, on the same principle as the other changes in colour, viz. the combination of their primaries. Theory suggested that the blue iris should become white rather than black, seeing that, in this second stage of inflammation, it contained both blue, red, and yellow matter, which, when combined, as is often done experimentally, form a somewhat whitish compound. After many experiments, I found that, unless the primary colours be in certain proportions, the compound will be black instead of white; and I have since learned that dyers are well aware, that, to produce the finest black, the goods should be dyed successively with all the three primary colours;[1] a circumstance corroborated by a distinguished artist to whom I mentioned it.

Thus, the blackening of a blue iris, in the second stage of inflammation, is no longer an anomaly. On the same principle may be explained the ashy black colour (resembling protoxide of mercury), so generally observed in the first stage of inflammation in an iris, the natural colour of which is light or greyish blue, mixed with fine streaks of yellow.

The principles which determine the successive development of different colours in a naturally blue iris are equally applicable to other cases, where the original colours are different. The morbid colours being always the result of a combination of the natural ones, with

---

[1] "If a dyer," says Dr Ure, "attempts to make a white, by applying red, yellow, and blue dyes, in imitation of the philosopher's experiment on the synthesis of the sunbeam, he will deviate still farther from his purpose, since the stuff will appear black."—"The proper black," he adds, "can be obtained only by using the three colours, blue, red, and yellow."—*Dictionary of Arts*, pp. 413 and 416.

red blood, red blood and yellow lymph mixed, or yellow lymph alone, as shown in the following

TABLE *of the more common Changes in the Colour of the Iris, observed during or after Inflammation.*

	MORBID COLOURS.		
Natural Colour of the Iris, or of the inflamed portion of it.	First Stage of Inflammation, before lymph is effused.	Transition Stage—increased vascularity, and commencing effusion of lymph.	Third Stage, when lymph is effused, or in the Sequelæ of the Disease.
Blue.	Purple of a campanula, imperial, or plum shade.	Black, hornblende black, or greenish black.[1]	Dingy green, sap green, or grass green.
Blueish grey, with yellow markings.	Basalt black, or greyish black.	Apple bark green.	Yellowish green.
Basalt black.	Brownish black.	Chesnut.	Hazel, light wood brown, light olive, or wax yellow, according to the depth of the original colour.
Clove brown.	Reddish black.	Lighter chesnut, or hazel.	
Hazel.	Brownish red, or tile red.	Wood brown, or very light hazel.	Tawny orange, or amber yellow.
Citron, or more or less of a yellow hue.	Deep orange.	Lighter orange.	Light yellow.
Transparent and nearly colourless —(*the anterior serous layer.*)	Arterial red.[2]	Reddish orange.[2]	Very light, or primrose yellow.

In the preceding table, the changes in colour observed in practice are almost identical with, or differ very slightly from, those which may be produced artificially by similar combinations. In originally framing the table, I compared the colours of the inflamed iris with

[1] Most distinctly seen in Traumatic Iritis.
[2] Very common in Syphilitic Iritis.

the standard ones of Werner, and adopted his nomenclature.[1] I have been induced, however, to change it partially, in preparing this paper for the press; because, without illustrations, many of Werner's names are not easily recognised or comprehended; such as "pistachio green, siskin green, broccili brown," &c.; whilst others, such as "apple green," which resembles the bark, not the fruit; "cochineal red," which is a reddish brown, and not an arterial or a crimson red, &c. are by no means happy, and very apt to mislead.

The practical utility of a correct observation of the changes produced in the iris by inflammation is considerable, both in the diagnosis, and in the treatment of iritis.

1. *In the diagnosis.*—(*a*)To an experienced eye, the most unequivocal objective symptoms of incipient inflammation of the iris are a slight thickening or puckering, and a want of sharpness in its pupillary edge, along with a degree of muddiness in the anterior chamber, and diminished lustre of the pupil. Many persons, however, find considerable difficulty in appreciating these appearances in their very slightest form; and to them the change of colour is a much more striking symptom. (*b*)When the cornea is irregular or ulcerated, the proper sharpness and lustre of the pupil often appear defective when they are not so, owing to the irregular refraction of the cornea. In such cases, any change in the colour of the iris is nearly as perceptible as ever, and it then becomes an objective symptom of first-rate importance. (*c*)The nature of the change in the colour of the whole iris, or of certain parts of it, illustrates the stage of the inflammation; the general rule being, that the iris becomes darker in the earlier stage, and lighter afterwards, when lymph begins to be effused in considerable quantity. In applying this rule, regard must be had to the natural colour of the inflamed part. Thus, if the inner circle of an iris, naturally of a yellow hue, become somewhat orange, the first stage of inflammation is indicated; but if the same tint be assumed where the original colour is hazel or dark brown, then the third, and much more serious stage, is indicated. Again, a blue iris, with a yellowish green inner circle, may be a perfectly natural appearance; but if it be known or suspected that the original colour of its inner circle was blueish-grey, then this yellowish-green colour is a morbid appearance, indicating a present or past state of severe inflammation; so, in other cases—the great object being to observe accurately the existing colour of the larger or smaller circles of the iris, and to compare it with their natural colour.

2. *In the treatment of Iritis*, a minute attention to the colour of the iris is highly useful. (*a*)In determining when the employment of mercury becomes almost a *sine qua non*. Incipient rheumatic iritis

---

[1] Werner's Nomenclature of Colours, by P. Syme. Edin. 1814.

may be often cured by leeching, colchicum, and sudorifics, which frequently require to be used for sometime before they remove the disease. But, whenever there occurs a change in the colour of the iris, indicative of the commencing effusion of lymph, mercury (unless most specially contra-indicated by some other circumstances in the condition of the patient) must be administered, and speedily too, or else the mobility of the iris will be permanently impaired, or extensive adhesions and even closure of the pupil be almost inevitable. (*b*) In chronic cases, the progressive restoration of the natural colour of the iris is a good test of the efficacy of the means employed, whether mercury, iodine, or oil of turpentine; and for deciding on the propriety of continuing their use. (*c*) Whenever the change of colour in the iris indicates the recent and extensive effusion of lymph into its interstices, there is great danger of a slow and gradual closure of the pupil taking place for some weeks or months after all inflammatory action has subsided, and the cure apparently complete. In such cases, the daily use of belladonna, or hyosciamus, to keep the pupil moderately dilated, becomes an essential point of treatment. (*d*) When the pupil is closed, either by lymph, or by entanglement of the edges of the iris in a penetrating ulcer of the cornea, or in the cicatrix, after the extraction of a cataract, or from other causes, and an operation for an artificial pupil is contemplated, any change in colour, indicating the matting together of the iridal fibres with lymph, should be carefully noted. In such cases, the prognosis as to the probable utility of any operation, such as "incision," (*iridotomia,*) or "simple ciliary separation," (*iridodialysis,*) the success of which depends on the contraction of the liberated portion of the iris, should be extremely dubious, and a preference given to "excision," (*iridectomia,*) or to "compound ciliary separation," the separated portion being either drawn out and cut off, (*iridectomedialysis,*) or left strangulated in the wound of the cornea, (*iridencleisis.*)

ARTICLE IV.—*Remarkable Case of Aneurism of the Aorta, with Remarks.* By DAVID URE, Esq., Surgeon, Dundee.

THE following case appears to me deserving of notice for several reasons—1st, The absence of any symptoms which could have led to the suspicion of the existence of such a serious disease, previous to, and even after, the bursting of the aneurism into the lung;—2d, The complete cure of the rupture into the lung, as effected by nature;—and, 3d, The length of the time the patient lived, after a direct communication had been formed between the cavity of the aneurismal sac, and the canal of the œsophagus. The wonder being,